

Name _____

Monitor Your Comprehension

**SET A PURPOSE
FOR READING**

Read this article to find out
what kind of creature the
SuperCroc was.

Homework Due _____

SUPERCROC

PETER WINKLER

BACKGROUND The word *fossil* comes from the Latin word *fossus* meaning “having been dug up.” Fossils are the remains and traces of animals, plants, and other living organisms. Scientists examine fossils to learn about the remote past. In this article, you will learn about a creature from the past that is so fearsome that one scientist calls him “the monster of them all.”

Out of Africa comes a giant reptile that lived with dinosaurs—and ate them.

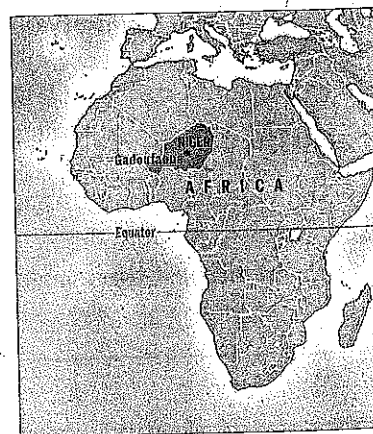
“We’re stuck again!” Scientist Paul Sereno and his team said those words many times as they drove into a rugged part of Africa. Desert sand kept stopping their vehicles. It took 10 hours to go just 87 miles.

That long crawl ended at Gadoufaoua,¹ a dry region in the country of Niger.²

To most eyes, the place
10 looked empty. There was
sand. There was wind.
There was nothing else.
Or so it seemed.

But Sereno saw much
more. He saw a chance
to find dinosaurs.

Sereno, a paleontologist,
knew that the region



The country of Niger is in West Africa.

1. Gadoufaoua (gə-dōō'fä'wōh).

2. Niger (nī'jer).

contains countless fossils from ancient dinosaurs.

20 Gadoufaoua is one of Africa's richest sources of dino fossils. Ⓐ

Sereno found some fossils there in 1997. He came back in 2000 to seek more. The team spent four months in the desert. Crew members woke at 6:00 each morning, then explored the sand dunes for about 12 hours. They worked even when the temperature hit 125°F.

And they found fossils. By the end of the expedition, Sereno and his team had collected 20 tons of bones. Most of the fossils came from dinosaurs, including
30 types never seen before. Others came from turtles, fish, and crocodiles.

One of those crocodiles was *Sarcosuchus imperator*,³ a name that means "flesh crocodile emperor." Sereno's team nicknamed it "SuperCroc."

What Makes This Croc So Super? Ⓑ

In a word, size. The skull alone was six feet long. Sereno says it's "about the biggest I've ever seen."

Naturally, Sereno wondered how big SuperCroc was overall. The team found only part of its skeleton, so
40 Sereno had to make an estimate. To do that, he looked at crocodiles that live today. He and other experts compared the animals' skull and body sizes.

Based on his research, Sereno concluded that an adult SuperCroc could grow to be 40 feet long and probably weighed as much as 10 tons. That's heavier than an African elephant.

fossil (fös'əl) *n.* the remains of a living thing, preserved in soil or rock

Ⓐ TEXT FEATURES

Reread lines 1–21 and underline text that tells about Gadoufaoua. Then study the map. What information about Gadoufaoua and Niger does the map present that the text does not? List three details below.

1. _____

2. _____

3. _____

Ⓑ TEXT FEATURES

Preview the article's **subheadings**. What do you think the article will tell you about SuperCroc?

expert (äk'spürt') *n.* one who is skilled in or knowledgeable about a particular thing

3. *Sarcosuchus imperator* (sär'kō-sōō'kŷs ĭm-pŭr'ā-tôr).

© SUMMARIZE

Reread lines 35–49. Circle the main idea of this section. Underline the most important details. Then state this information in your own words in the box below.

What Makes This Croc So Super?

Main Idea: _____

Supporting Details: _____

extinct (ɪk-stɪŋkt') *adj.* no longer existing

predator (prɛd'ə-tər) *n.* an animal that feeds on other animals

species (spē'shēz) *n.* a variety or type of something

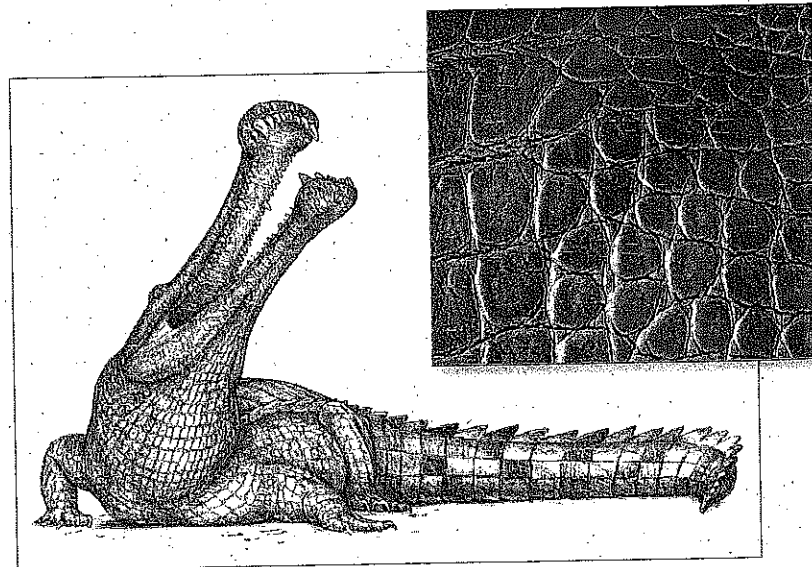
Those measurements make SuperCroc one of the largest crocodiles ever to walk Earth. Today's biggest crocs grow to about 20 feet. ©

50 A Different-Looking Beast

SuperCroc's long head is wider in front than in the middle. That shape is unique. No other croc—living or extinct—has a snout quite like it.

At the front of SuperCroc's head is a big hole. That's where the nose would be. That empty space may have given the ancient predator a keen sense of smell. Or perhaps it helped SuperCroc make noise to communicate with other members of its species.

SuperCroc wore serious armor. Huge plates of bone, 60 called scutes, covered the animal's back. Hundreds of them lay just below the skin. A single scute from the back could be a foot long!

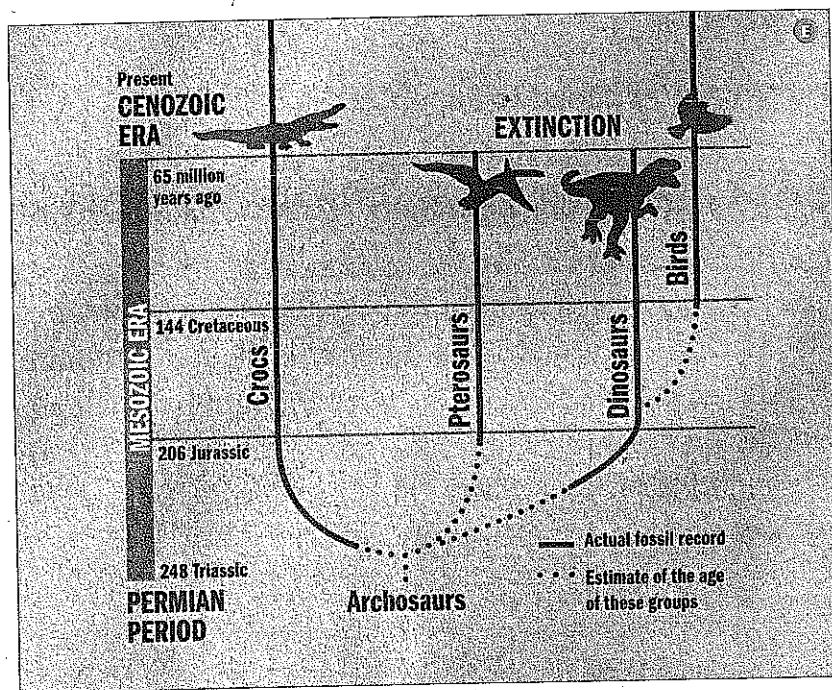


When Did SuperCroc Live?

Estimating a fossil's age is a challenge. Sereno and his team looked carefully at the group of fossils they had found. They compared the fossils to others whose ages the scientists did know. Based on those comparisons, Sereno believes SuperCroc lived about 110 million years ago.

70 Gadoufaoua looked a bit different in those days. What is now a desert was a land of winding rivers. Plenty of trees grew along the banks. Huge fish swam the rivers, while various dinosaurs lived in the forests.

Five or more crocodile species lurked in the rivers. SuperCroc, Sereno says, was "the monster of them all." ①



This timeline covers many millions of years, from the Permian Period (at the bottom of the graphic aid) to the present day. It shows some of the animals that descended from the ancient archosaurs. Not all of the archosaurs' descendants have survived. The line near the top of the graphic aid shows when some became extinct.

① SUMMARIZE

Reread lines 50–75. Circle the main idea of each section. Underline the most important details. You will use this information to help you summarize the article.

② TEXT FEATURES

A **timeline** shows events in chronological order (the order in which they happened). This timeline reads from bottom to top—the earliest events are on the bottom. There you see the name archosaurs, a very ancient kind of animal from which many others descended. On the timeline, circle the names of two animals that became extinct about 65 million years ago. Which two kinds of animal survived into the Cenozoic Era (the present era)?

Ⓔ SUMMARIZE

Reread lines 76–99. Circle the main idea of each section. Underline important details. Then summarize each section in one sentence below.

What Did SuperCroc Eat?

What Happened to SuperCroc?

What Did SuperCroc Eat?

“Anything it wanted,” Sereno says. SuperCroc’s narrow jaws held about 130 teeth. The teeth were short but incredibly strong. SuperCroc’s mouth was “designed
80 for grabbing prey⁴—fish, turtles, and dinosaurs that strayed too close.”

SuperCroc likely spent most of its life in the river. Water hid the creature’s huge body. Only its eyes and nostrils poked above the surface.

After spotting a meal, the giant hunter moved quietly toward the animal. Then—wham! That huge mouth locked onto its prey. SuperCroc dragged the stunned creature into the water. There the animal drowned. Then it became food.

90 What Happened to SuperCroc?

The giant beast probably lived only a few million year. That raises a huge question: Why didn’t SuperCroc survive?

Sereno suspects that SuperCrocs were fairly rare. After all, a monster that big needs plenty of room in which to live. Disease or disaster could have wiped out the species pretty quickly. But no one knows for sure what killed SuperCroc. That’s a mystery for future scientists. Ⓔ

4. **prey:** animals that become the food of another animal.

After Reading

Elements of Nonfiction: Text Features

Review the notes you took about the text features in "SuperCroc." How did each type of text feature help you understand the article and learn about SuperCroc? Write your answers in the chart.



READING 12B Interpret factual, quantitative, or technical information presented in maps, illustrations, and timelines.

Text Features	How They Helped Me Understand the Article
Subheadings	
Graphic aids	
Captions	

What kinds of information do maps and timelines convey more clearly than regular text? Refer to the map and timeline from "SuperCroc" in your answer.

~~Handwritten lines for answer, crossed out with a large X.~~

After Reading



READING 10A Summarize the main ideas and supporting details in text, demonstrating an understanding that a summary does not include opinions.
RC-6(E) Summarize texts in ways that maintain meaning and logical order within a text.

Reading Strategy: Summarize

Review the main ideas and important details you noted in each section of "SuperCroc." Use this information to write a summary of the entire article. Your summary might include one sentence for each section. Remember that a summary does not include your opinions—only facts from the article.

My Summary of the Article

Are MONSTERS real?

Review the list of monsters you created on page 322. Which monster from your list is most similar to SuperCroc? Explain your answer.

Vocabulary Practice

Circle the word that is not related in meaning to the other words.

1. (a) skeleton, (b) fossil, (c) bone, (d) alive
2. (a) expert, (b) inexperienced, (c) authority, (d) knowledgeable
3. (a) kind, (b) species, (c) type, (d) desert
4. (a) extinct, (b) living, (c) active, (d) breathing
5. (a) slayer, (b) admirer, (c) predator, (d) killer

Academic Vocabulary in Writing

achieve appreciate characteristics conclude obvious

What was Paul Sereno's **purpose** in spending so much time in the desert of Gadoufaoua? Use at least two Academic Vocabulary words in your response. Definitions of these words are on page 321.



READING 10A Summarize the main ideas and supporting details in text, demonstrating an understanding that a summary does not include opinions. **12B** Interpret factual, quantitative, or technical information presented in maps, illustrations, and timelines. **RC-6(E)** Summarize texts in ways that maintain meaning and logical order within a text.

Texas Assessment Practice

DIRECTIONS Use "SuperCroc" to answer questions 1–5.

- 1 The Gadoufaoua region of Niger interests Paul Sereno because —
 - (A) an ancient river once flowed through it
 - (B) it is filled with dinosaur fossils
 - (C) many crocodiles live there today
 - (D) he is an expert on desert environments
- 2 The *Sarcosuchus imperator* is nicknamed "SuperCroc" because —
 - (F) it had extremely long teeth
 - (G) its head had an unusual shape
 - (H) adults reached a length of 40 feet
 - (J) it existed in greater numbers than other prehistoric animals
- 3 The map on page 324 shows —
 - (A) the locations of Niger and Gadoufaoua
 - (B) the rivers where many SuperCrocs lived
 - (C) how far Sereno's team traveled to reach Africa
 - (D) the way Africa looked in the Mesozoic Era
- 4 Which of the following is the best summary of the section "A Different-Looking Beast"?
 - (F) SuperCroc's snout grew wider at the end and had a large hole in it, and the animal was covered in tough plates called scutes.
 - (G) SuperCroc was one of the ugliest prehistoric animals, but its armor was impressive.
 - (H) SuperCroc, a large predator with an unusually shaped head, lived about 110 million years ago and ate many different animals.
 - (J) SuperCroc had a hole in its snout that may have given it a keen sense of smell or helped it communicate with other crocs.
- 5 The timeline on page 327 shows that —
 - (A) archosaurs descended from ancient SuperCrocs
 - (B) SuperCroc survived into the Cenozoic Era
 - (C) birds are not related to crocodiles
 - (D) pterosaurs become extinct about 65 million years ago